PUBLIC SAFETY AND SMALL GAS PIPELINE SYSTEMS
NOTICE OF INQUIRY—DISCUSSION PAPER
Docket No. PG-051355

This Inquiry will gather information about the existence, design and operation of small natural gas and propane pipeline systems in Washington State, with the purpose of identifying the relative public safety risk they pose and recommending appropriate state safety policies and regulations.

The Washington Utilities and Transportation Commission is the state agency with the responsibility for enforcing federal and state safety laws on intrastate gas pipeline systems. Currently, the commission's intrastate pipeline safety program is involved with inspecting the state's seven local natural gas distribution systems and the seven gas pipelines owned by large industrial gas customers. The commission also inspects roughly 16 small gas pipeline systems which meet the federal definition of "master meter" systems.[1]

However, not all small gas pipeline systems fit into the federal definition of master meter systems. Some systems, for instance, are operated by one owner but involve public access, such as at a university or in a hospital complex. Other systems distribute propane from a tank through pipelines to commercial or residential customers. Some of these systems are well managed; however, most are not managed at all. These systems range in size from serving two customers or facilities to several hundred customers.

Whether these systems are considered master meters or not, there is concern that these small gas pipeline systems may represent an "uncharted landscape" of public safety risk.

I. PURPOSE

The purpose of this Notice of Inquiry is to investigate the level of risk, if any, posed by small natural gas and propane pipeline systems and, if needed, to develop recommendations about possible necessary regulatory steps to improve the safety of small gas pipeline systems. For this inquiry, small gas pipeline systems are those systems distributing gas to more than one building, excluding local distribution companies, transmission pipelines or large customer-owned systems, because these are inspected by the Washington pipeline safety program. Discussion of small gas

[1] 49 C.F.R. § 191.3: "*Master Meter System* means a pipeline system for distributing gas within, but not limited to, a definable area, such as a mobile home park, housing project, or apartment complex, where the operator purchases metered gas from an outside source for resale through a gas distribution pipeline system. The gas distribution pipeline system supplies the ultimate consumer who either purchases the gas directly through a meter or by other means, such as by rents."

pipeline systems should not be limited to "master meter systems" as defined in 49 C.F.R. § 191.3. The product of this inquiry may include recommendations for actions that may be taken without regulatory changes; recommendations for policy or interpretive statements; recommendations for rulemaking, or recommendations to consider proposals for change in state law.

II. THE CHALLENGE

A pipeline safety program confronts a number of complicating factors when attempting to ensure the safety of small gas pipeline systems. These include:

1) **Number of systems.** While the Washington pipeline safety program currently inspects roughly 16 master meter systems, there are a many other small gas pipeline systems operating in Washington. In 1999, the commission estimated that Washington had 258 systems that met a definition of master meter contained in commission rules at that time. Depending on how these small gas pipeline systems are defined, there could as many as 1,500 small gas pipeline systems scattered throughout the state.

2) **Difficult to identify**. There is no comprehensive list of small gas pipeline operations. While local gas utilities may be able to assist in identifying some or all of the systems that receive natural gas, there has not been a comprehensive effort to identify all potential systems in Washington State. Locating propane distribution systems pose additional complications.

3) **Non-professional operators**. While some small gas pipeline systems are operated by professional operators, most appear to be operated and maintained by people who have, at best, a vague understanding of the applicable pipeline safety requirements. Consequently, state pipeline safety inspectors must spend a disproportionate amount of time on these systems, compared to time they spend on larger systems.

4) **Poor communication.** Many small gas pipeline system owners are not aware of the applicable pipeline safety requirements. If these systems have operators, they usually have other non-pipeline related responsibilities that demand their time and attention. Some systems also appear to have a high level of operator turnover. These factors make it difficult for the commission to communicate consistently and efficiently with small gas pipeline systems regarding safety rule and other policy changes, public safety information and training opportunities.

5) **Price signals.** Gas utility rate structures may provide an incentive for persons to aggregate large volume purchases behind a natural gas or propane distribution system, by means of a master meter system or other means. However, such systems might not be economical when the full cost of operation, maintenance and safety compliance is taken into consideration.

6) **Equity.** Washington's pipeline safety program is supported by federal grants and fees paid by the larger pipeline companies. Currently, no fees are assessed on the smaller, master meter

operators. Devoting significant effort to small gas pipeline systems that do not pay regulatory fees may be inequitable to those pipeline companies that pay fees.

7) **Cost-effective regulation.** Small gas pipeline systems come in a wide variety of configurations. These configurations pose different ranges of risk. Currently, the state pipeline safety program does not have the information necessary to prioritize inspections of small gas pipeline systems according to the highest risk.

III. RISKS POSED BY SMALL GAS PIPELINE SYSTEMS

In 2002 the federal Office of Pipeline Safety (OPS) contracted a study of master meter systems. The study evaluated master meter systems in 37 states. In one five year period, the study found two documented master meter incidents resulting in two injuries. In that same period, natural gas distribution companies in those states had 290 incidents, killing 45 people and injuring another 218.

This assessment does not necessarily mean that small gas pipeline systems are safer. The same report explains that "master meter incidents are not always identified as such in incident reports and incident databases."[2]

For example, the Washington pipeline safety program has found that most small gas pipeline system operators inspected were unaware of the requirement that accidents be reported to the State. When damage occurs, the operator typically calls the local gas utility or a plumber to make the repair and does not notify the State as required.[3]

The 2002 study for OPS also found there was "considerable variation" among the states in the condition of small gas pipeline systems. Some of the most frequently cited violations included problems relating to corrosion control, cathodic protection, leak surveys, emergency plans and records preparation and maintenance.[4]

The bottom line is that despite the relatively low incidence of reported accidents, the conditions for accidents clearly exist.

All gas pipeline systems present an inherent risk to the public and company workers. Gas pipeline operators should understand the factors that create risks to their systems, the dangers of failing to manage that risk and the consequences a failure may have on their workers and the public. The current safety regime focuses on ensuring this knowledge through regular inspections and audits. However, given the number and variety of small gas pipeline systems - most of which are not operated by professionals – the Washington pipeline safety program is

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[2] *Assessment of the Need for an Improved Inspection Program for Master Meter Systems*, A Report of the Secretary of Transportation to the Congress (January 2002), page 17. Hereafter, this document is called the "OPS Master Meter Report."
[3] Letter from Douglas Kilpatrick, WUTC Pipeline Safety Director to Paul Zebe, Volpe Center (December 1, 2000).
[4] OPS Master Meter Report, page 12.

concerned that inspecting the 16 federally-defined master meter systems might not be comprehensive enough to protect the public.

IV. PROPANE SYSTEMS

Propane is often used in areas beyond the reach of a natural gas distribution system. For this reason, propane systems are found mostly in suburban and rural areas. Propane systems serving one home or one business do not necessarily pose a public safety risk beyond the one customer and supplier. However, there are systems that distribute propane from a central tank to more than one customer. While these systems are not common, they do exist.

Washington's pipeline safety inspectors have identified propane distribution systems that serve apartments and commercial complexes. Washington's authority over these systems, if it exists at all, is tied to common carrier regulation; that is, if the pipeline safety program asserted jurisdiction over propane distribution systems, it also would have to assert economic regulation as well. While such systems potentially pose a public safety risk, they do not necessarily require rate regulation.

V. IDENTIFYING SMALL GAS PIPELINE SYSTEMS

This Notice of Inquiry may lead to a rulemaking but is not intended to be limited by the program's current jurisdiction. For instance, this is not an inquiry about master meter systems only. As suggested above, the federal and state definitions of master meter systems do not encompass the full range of small gas pipeline systems distributing natural gas and propane, and more to the point, these definitions might exclude systems that pose the greatest risk to public safety. Consequently, we wish to focus on the full range of risks posed by small gas pipeline systems, and the options to mitigate those risks.

The following characteristics could be used in defining small gas pipeline systems:

1) Number of buildings served
2) Underground/exterior pipelines
3) Proximity to other buildings, public access
4) Resale or customer relationship
5) Ownership (public, private)
6) Commodity transported
7) Pipeline materials
8) Number of customers
9) Length of exterior pipeline
10) Pressure
11) System age

These characteristics, and others, could suggest a level of risk. Yet the current definition focuses not on risk, but rather on whether the master meter operator receives compensation for distribution and/or resale of the gas. Furthermore, state law limits jurisdiction to "persons or corporations" and thus does not include not-for-profit organizations or government entities such as schools, etc.

VI. IDENTIFYING WHO AND WHERE THESE SYSTEMS ARE

Some examples of where these types of small gas pipeline systems can be found include:

1) Apartment buildings/complexes
2) Mobile home/Manufactured home parks
3) Public housing projects
4) Schools, colleges, universities
5) Shopping malls and commercial complexes
6) Industrial parks
7) Hotels, motels, resorts
8) Medical facilities
9) Campgrounds

VII. ALTERNATIVES TO CURRENT SAFETY REGIME

Currently, if a small gas pipeline system meets the master meter definition, it is expected to be designed, built and maintained to federal and state pipeline safety standards. Any regulated pipeline operator must submit to inspections, perform drug and alcohol tests, conduct public awareness efforts and comply with operator qualifications. If a gas pipeline system is not jurisdictional, no alternative public safety protection likely applies—though new systems may have to be designed and built to meet applicable building codes.

Given the variety of small gas pipeline systems and the cost to both operators and regulators of the current safety oversight regime, it is appropriate to consider policy alternatives. One approach could be to tailor regulatory requirements to the specific risk factors posed by small gas pipeline systems, such as focusing on corrosion protection, leak detection and technical assistance. Another approach would be to address the issue more comprehensively. For instance, a number of states attempt to discourage the creation of new master meters and encourage master meter operators to either let their facilities be taken over by the local gas utilities supplying them or, at a minimum, provide an incentive for the gas utility to take over the operation and maintenance of the smaller systems.

VIII. QUESTIONS

We would like your help in providing any information you believe can assist this Notice of Inquiry. Please refer to the preceding discussion and feel free to respond and rebut any statements above when responding to the following questions:

1) What public safety risks do small gas pipeline systems pose? What characteristics described in Section V and list here are indicators of risk and why? Are there other risk indicators that are not listed but should be considered?
    a. Number of buildings served
    b. Underground/exterior pipelines
    c. Proximity to other buildings, public access
    d. Resale or customer relationship
    e. Ownership (public, private)
    f. Commodity transported
    g. Pipeline materials
    h. Number of customers
    i. Length of exterior pipeline
    j. Pressure
    k. System age
2) Is it possible to define a category or categories of small gas pipeline systems that pose so little risk that minimal or no regulatory oversight is needed? How would these systems be defined?
3) Does the current federal master meter definition, which is also the state of Washington's definition, cover all small gas pipeline systems that should comply with federal and state pipeline safety requirements?
4) Are there systems that could fall in a range between little to no risk and those that require full oversight? If so, what strategies should be employed to ensure public safety?
5) What alternatives to the current master meter safety requirements could the state employ to minimize the risk associated with small gas pipeline systems?
6) What approaches should be taken to identify and communicate with operators of small gas pipeline systems?
7) How can local natural gas distribution companies help to identify existing small gas pipeline systems?
8) How can other entities, such as local governments, help in identifying new and existing small gas pipeline systems?
9) Please comment on the risks associated with pipeline systems distributing propane gas. Should underground pipeline systems that distribute propane be regulated by the state pipeline safety program (which may require that they also be economically regulated) or should changes be made to allow only for some form of safety regulation? Are there additional issues that should be considered with propane distribution systems?
10) Should small gas pipeline systems be encouraged or required to have their systems or operations taken over by local natural gas distribution companies or other professional

pipeline operators? What issues would need to be addressed before implementing such a policy?

11) Should new small gas pipeline systems be banned? What issues would need to be addressed before implementing such a ban?
12) What studies, data or resources can you offer to further the goals of this Notice of Inquiry?

IX NOTICE OF OPPORTUNITY TO PARTICIPATE

Written comments must be filed with the commission no later than **Tuesday, January 31, 2006.** We request that comments be provided in electronic format to enhance public access, for ease of providing comments, to reduce the need for paper copies, and to facilitate quotations from the comments. Comments may be submitted as electronic files in Word 97 or later or in Adobe Acrobat (.pdf) via the commission's Web Portal or by electronic mail to the commission's Records Center at <records@wutc.wa.gov>. Please include:

- The docket number of this proceeding (PG-051355)
- The commenting party's name
- The title and date of the comment or comments

An alternative method for submitting comments may be by mailing/delivering an electronic copy on a 3 ½ inch, IBM-formatted, high-density disk, in Word 97 or later or in .pdf Adobe Acrobat. Include all of the information requested above. We will post on the commission's web site all comments that are provided in electronic format. The web site is located at http://www.wutc.wa.gov/051355.

If you are unable to file your comments electronically or to submit them on a disk, we will always accept a paper document.

If you have any questions regarding the notice of inquiry, please contact Tim Sweeney at tsweeney@wutc.wa.gov or by calling (360) 664-1118.